



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

647.1511

Job Sheet 190722



Part No: 647.1511

Job Qty: 10 pcs

Part Name: Lower Deflector



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/13/19

Job Tracking No:

Due Date: 3/22/19 March 29

Created By: Marie Lajeunesse

Type: Stock

Description: SIOP

Note: DWG REV D IPP REV: A NEW ISSUE JFS 14/08/19 VERIFIED BY: JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Bandsaw - 1	10 pcs	3/22/19		0.00	1.00	Bandsaw - 1	DAS 52 8-89	19/03/31
110	HAAS 4 Axis - B4B	10 pcs	3/22/19		0.00	11.24	HAAS - 1 - B4B	DAS 52 9-89	19/03/31
							HAAS - 2 - B4B		
							HAAS - 3 - B4B		
							HAAS - 4 - B4B		
120	QC 2	10 pcs	3/22/19		0.00	0.00	QC 2 - 1		
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51	DAS 52 9-89	19/03/31
							QC 2 - 52		
							QC 2 - 54		
							QC 2 - 56		



Container No: S167977



Part: 647.1511

Job No: 190722

Serial No/Batch: S167977

Revision:

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 03/31/19

					QC 2 - 57	
					QC 2 - 62	
					QC 2 - 63	
					QC 2 - 8	
					QC 2 - 66	
					QC 2 - 64	
130	QC 8	10 pcs	3/22/19	0.00 0.00	QC 8 - 12	
					QC 8 - 14	2/19/04/01
					QC 8 - 17	
					QC 8 - 20	
					QC 8 - 25	
					QC 8 - 3	
					QC 8 - 32	
					QC 8 - 33	
					QC 8 - 35	
					QC 8 - 39	
					QC 8 - 4	
					QC 8 - 44	
					QC 8 - 45	
					QC 8 - 49	
					QC 8 - 58	
					QC 8 - 8	
					QC 8 - 9	
					QC 8 - 68	
					QC 8 - 67	
					QC 8 - 1 (A)	
					QC 8 - 47	
140	Outsource - 4 - Anodize	10 pcs	3/22/19		ATG001-VC	07/27/2019 PL
150	Packaging 2-1 - Receive - B4B	10 pcs	3/22/19	0.00 0.00	Packaging 2 - 1 - B4B	
					Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	8 MAY 21 2019
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	
					Packaging 2 - 19 - B4B	
					Packaging 2 - 20 - B4B	
					Packaging 2 - 21 -	

				B4B		
				Packaging 2 - 22 - B4B		
				Packaging 2 - 23 - B4B		
				Packaging 2 - 24 - B4B		
				Packaging 2 - 25 - B4B		
				Packaging 2 - 26 - B4B		
				Packaging 2 - 27 - B4B		
				Packaging 2 - 28 - B4B		
				Packaging 2 - 29 - B4B		
				Packaging 2 - 30 - B4B		
				Packaging 2 - 31 - B4B		
				Packaging 2 - 32 - B4B		
				Packaging 2 - 33 - B4B		
				Packaging 2 - 34 - B4B		
				Packaging 2 - 35 - B4B		
				Packaging 2 - 36 - B4B		
155	QC 5	10 pcs	3/22/19	0.00	0.00	QC 5 - 10
						QC 5 - 12
						QC 5 - 17
						QC 5 - 18
						QC 5 - 19
						QC 5 - 22
						QC 5 - 24
						QC 5 - 3
						QC 5 - 42
						QC 5 - 43
						QC 5 - 49
						QC 5 - 51
						QC 5 - 58
						QC 5 - 68
						QC 5 - 9
						QC 5 - 50
						QC 5 - 30
180	Packaging 3-1 - Stock - B4B	10 pcs	3/22/19	0.00	0.00	Packaging 3 - 1 - B4B
						Packaging 3 - 2 - B4B
						Packaging 3 - 3 - B4B
						Packaging 3 - 4 - B4B
						Packaging 3 - 5 - B4B
						Packaging 3 - 6 - B4B
						Packaging 3 - 7 - B4B
						Packaging 3 - 8 - B4B
						Packaging 3 - 9 - B4B
						Packaging 3 - 10 - B4B
						Packaging 3 - 11 - B4B
						Packaging 3 - 12 -

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				B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	PC CCK090
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
190 QC 21 - SA	10 pcs	3/22/19	0.00 0.00	QC 21 - SA - 21	DAS 21 JUN 2 1 2019
				QC 21 - SA - 70	9-59
				QC 21 - SA - 53	

Part Op 100 - (Bandsaw) Cut Blank at 26.800" *** ONE BLANK MAKES TWO PARTS***

Descriptions: 110 - (HAAS CNC Vertical Machine) 1-Machine per folio FB338 DWG REV: 2 FOLIO REV: AA 2-
debur and break all sharp edges

120 - (QC2- Inspect parts off machine FAI/FAIB)

130 - (QC8- Inspect parts - second check)

140 - (Outsource process-Anodize per QSI017 4.1.10.1) Issue P/O to ATG : HB 013205 , Hard Anodize Color Black, Prime as per Dwg 647.1500 Rev. D.

150 - (Receive & Inspect for Damage & Mat'l Certs)

155 - (QC5- Inspect part completeness to step on W/O)

180 - (Identify as per dwg & Stock Location: _____) ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

190 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M7075T6S0.375X5.000	M7075T6S0.375 X 5.000	11.1700 ft (1.117 ea)	100-Bandsaw - 1	5161092

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Bandsaw - 1	M7075T6S0.375X5.000	11	15	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Lower Deflector	10.230inches $\pm$ 0.010	10.240 10.220	10.23	
2	Lower Deflector	0.130inches $\pm$ 0.010	0.140 0.120	0.130	
3	Lower Deflector	45.000degrees $\pm$ 0.500	45.500 44.500	45°	Angle
4	Lower Deflector	0.177inches $\pm$ 0.005 - 0.001	0.182 0.176	0.177	Diameter
5	Lower Deflector	0.129inches $\pm$ 0.005 - 0.001	0.134 0.128	0.129	Diameter
6	Lower Deflector	65.800degrees $\pm$ 0.500	66.300 65.300	65.8	
7	Lower Deflector	49.610degrees $\pm$ 0.500	50.110 49.110	49.6	
8	Lower Deflector	0.310inches $\pm$ 0.005	0.315 0.305	0.310	
9	Lower Deflector	5.058inches $\pm$ 0.005	5.063 5.053	5.056	
10	Lower Deflector	10.430inches $\pm$ 0.010	10.440 10.420	10.425	
11	Lower Deflector	1.500inches $\pm$ 0.005	1.505 1.495	1.500	
12	Lower Deflector	0.575inches $\pm$ 0.005	0.580 0.570	0.575	
13	Lower Deflector	1.385inches $\pm$ 0.005	1.390 1.380	1.385	
14	Lower Deflector	0.401inches $\pm$ 0.005	0.406 0.396	0.400	
15	Lower Deflector	0.615inches $\pm$ 0.005	0.620 0.610	0.613	
16	Lower Deflector	0.700inches $\pm$ 0.010	0.710 0.690	0.700	
17	Lower Deflector	0.340inches $\pm$ 0.000 - 0.005 - 0.002	0.340 0.335	0.340	
18	Lower Deflector	0.040inches $\pm$ 0.010	0.050 0.030	0.040	
19	Lower Deflector	45.000degrees $\pm$ 0.500	45.500 44.500	45°	Angle
20	Lower Deflector	2.110inches $\pm$ 0.005	2.115 2.105	2.110	
21	Lower Deflector	4.220inches $\pm$ 0.005	4.225 4.215	4.22	
22	Lower Deflector	0.300inches $\pm$ 0.010	0.310 0.290	0.300	
23	Lower Deflector	45.000degrees $\pm$ 0.500	45.500 44.500	45°	Angle
24	Lower Deflector	0.380inches $\pm$ 0.010	0.390 0.370	0.370	
25	Lower Deflector	0.360inches $\pm$ 0.000 - 0.005 - 0.002	0.360 0.355	0.359	

DAS
52
9-89

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19/03/31

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QS1042)	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor		
			QC / QA Coordinator		
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043285



Supplier: ATG001-VC
A.T.G. Industries Inc
731 INDUSTRIELLE ROAD
ROCKLAND
ON
K4K 1T2 Canada
Phone: 613-446-4544
Fax: 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB043285

PO Date: 4/24/19

Due Date: 5/1/19

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pynt Terms: Net 30

Freight Terms:
Special Comments:

E-MAILED
2019-05-13

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	190723	647.1512	Breakaway Tip (Outsource process-Anodize per QSI017 4.1.10.1) Issue P/O to ATG : 1- Black Anodize as per Dwg 647.1500 2- PRIME AS PER DWG, SEE NOTE #2 Certification of Conformity is required	Firmed	-	5/1/19	10 pcs	0 pcs	10 pcs	\$13.00/pcs	\$130.00
							10 X MAY 2 1 2019				
2	190722	647.1511	Lower Deflector (Outsource process-Anodize per QSI017 4.1.10.1) Issue P/O to ATG : _____, Hard Anodize Color Black, Prime as per Dwg 647.1500 Rev. D.	Firmed	-	5/1/19	10 pcs	0 pcs	10 pcs	\$13.45/pcs	\$134.50
							10 X MAY 2 1 2019				
	192598			Firmed	-	5/1/19	2 pcs	0 pcs	2 pcs	\$13.45/pcs	\$26.90
							7 X MAY 2 1 2019				
Sub Total:							12	0	12		\$161.40
3	190595	647.7812	Center Plate, Upper Issue P/O to ATG : Hard Black Anodize and Prime Dwg 647.7800 Rev. A	Firmed	-	5/1/19	7 pcs	0 pcs	7 pcs	\$11.05/pcs	\$77.35
							7 X MAY 2 1 2019				

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PURCHASE ORDER

POHB043285



Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	192736	649.5214	Bracket Issue P/O to ATG: AS PER MPP-172 SECTION 2.1, HARD ANODIZE COLOR BLACK, PER IAW MIL-A-8625 TYPE 3 CLASS 2 AS PER MPP-172 SECTION 4.2, PRIME AS PER IAW MIL-PRF-23377 TYPE 1 CLASS N	Firmed	-	5/1/19	10 pcs	0 pcs	10 pcs	\$11.30/pcs	\$113.00
5	192694	649.5212	Bracket Issue P/O to ATG: AS PER MPP-172 SECTION 2.1, HARD ANODIZE COLOR BLACK, PER IAW MIL-A-8625 TYPE 3 CLASS 2 AS PER MPP-172 SECTION 4.2, PRIME AS PER IAW MIL-PRF-23377 TYPE 1 CLASS N	Firmed	-	5/1/19	10 pcs	0 pcs	10 pcs	\$11.30/pcs	\$113.00
6	192700	649.5113	Wiper Deflector Shim - Issue P/O to ATG : - Hard Anodize Black, Type 3, Class 2 as per Dwg. - Prime as per Dwg. Certification of Conformity is required.	Firmed	-	5/1/19	8 pcs	0 pcs	8 pcs	\$8.55/pcs	\$68.40
7	192695	649.5110	Wiper Deflector (Outsource process-Anodize per QSI017 4.1.10.1) Outsource process-Anodize per QSI017 4.1.10.1 Issue P/O to ATG : 1- Black Anodize as per Dwg 649.5100 2- PRIME AS PER DWG, SEE NOTE #2 Certification of Conformity is required	Firmed	-	5/1/19	10 pcs	0 pcs	10 pcs	\$10.85/pcs	\$108.50
Grand Total:											\$771.65



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PURCHASE ORDER

POHB043285



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 5/13/19 8:34 AM Dart.Guerin.Kimberley



A.T.G. Industries Inc.
760 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 917848

Date: 17-May-19

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Patrick Lussier
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		ATG Delivery	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
✓ 12 ea	Part: 647.1511 Lower Deflector Hard Black Anodize per MIL-A-8625F, Type III, Class2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (1 - 2 mils) per drawing. Job: 24998 PO: POHB043285	Rev: D Line: 2	RECEIVED MAY 17 2019 DART AEROSPACE LTD. DAS 40 9-89
✓ 7 ea	Part: 647.7812 Center Plate, Upper Hard Black Anodize per MIL-A-8625F, Type III, Class2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Job: 24999 PO: POHB043285	Rev: A Line: 3	RECEIVED MAY 17 2019 DART AEROSPACE LTD.
8 ea	Part: 649.5113 Wiper Deflector Shim Hard Black Anodize per MIL-A-8625F, Type III, Class2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (1 - 2 mils) per drawing. Job: 25002 PO: POHB043285	Rev: D Line: 6	RECEIVED MAY 17 2019 DART AEROSPACE LTD.
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>MAY 17 2019</u> Made in Canada.			



A.T.G. Industries Inc.
760 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 917848

Date: 17-May-19

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Patrick Lussier
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		ATG Delivery	
Quantity	Description	DAS 40 9-89	
	Certified Signature: _____		
	Receiver Signature: _____		
A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited.			
Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.			
Made in Canada.			